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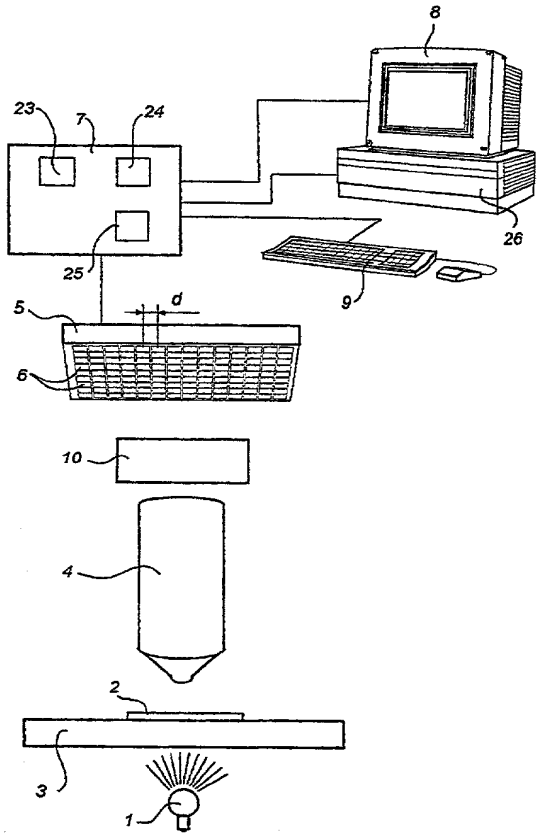
(54) Title: MICROSCOPE FILTER FOR AUTOMATIC CONTRAST ENHANCEMENT



(57) Abstract: A microscope comprises an object holder (3), optics which in an image plane form an image of an object (2) which is placed in the object holder, a digital image sensor (5) which has a number of sensor elements (6) for recording the image. The image sensor and the image plane are arranged in such manner that the spatial frequency of the sensor elements (6) is higher than the maximum spatial frequency of the image. The microscope further comprises at least a first calculating means (24) which is connected to the image sensor (5) and which is adapted to provide a two-dimensional filter function, which essentially has the value one at the spatial frequency zero, a value higher than zero at a spatial frequency above the maximum spatial frequency of the image and a peak value between said frequencies, to calculate a digital filter corresponding to a two-dimensional inverse Fourier transform of the filter function, and to filter a recorded image by means of the digital filter.

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